Overview of the EPIC Mission Concept

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The Extrasolar Planetary Imaging Coronagraph (EPIC) is a Discovery class mission to directly image Jupiter-like planets around nearby stars. EPIC is sensitive to Jovian planets at typical distances of 2 to 20 AU from the parent star, and so will find solar-system analogs – those most likely to harbor earth-like planets. Such systems will be the primary targets for NASA's subsequent planet searches under the Office of Space Science's Origins theme, culminating in TPF. EPIC's direct planet discovery capabilities are complemented by its unique ability to image the dust disks and very low mass companions close in to stars. EPIC will revolutionize our understanding of the environments of stars over wide ranges of age and mass. We will present an overview of the EPIC mission concept, the approach to high contrast imaging, and discuss its discovery space.

Program and Abstracts

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